UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
SHELEHEDA, JAMES R

ART UNIT	PAPER NUMBER
2614	

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/516,983	ELDERING ET AL.
	Examiner	Art Unit	
	James Sheleheda	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE **3** MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *30 July 2004*.
2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *53-95* is/are pending in the application.
   4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) *53-95* is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a) ☐ All b) ☐ Some * c) ☐ None of:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. _____.
    3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _7/20/04, 8/05/04, 8/09/04_
4) ☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 76, 85-87 and 95 are rejected under 35 U.S.C. 102(e) as being

anticipated by Alexander et al. (Alexander) (6,177,931) (of record).

As to claim 76, Alexander discloses a method for generating a subscriber profile

from subscriber interaction, the method comprising:

monitoring subscriber interactions with a multimedia interaction device

(monitoring user interactions with a TV and EPG; column 28, lines 30-52);

processing the filtered subscriber interactions to generate a first representation of

a subscriber (generating a list of user preferences for particular channels, themes,

etc...; column 29, lines 34-55);

retrieving heuristic rules related to at least a portion of the first representation (an

algorithm used by the Profile program to perform analysis; column 30, lines 17-37),

wherein the heuristic rules predict demographic traits for a subscriber based on the first

representation (column 30, lines 29-37); and

applying the heuristic rules to the first representation (column 30, lines 17-37) to

generate a subscriber profile (column 30, lines 17-37) wherein the subscriber profile

defines a second representation of the subscriber that includes demographic traits

(column 30, lines 17-37).

As to claim 85, Alexander discloses wherein the heuristic rules associate

subscriber interactions to demographic traits including at least some subset of program

genre to age (wherein user interactions including program themes are analyzed to

determine the subscriber age; column 29, lines 34-50 and column 30, lines 29-32) and

program genre to family size (wherein user interactions including program themes are

analyzed to determine whether the subscriber is married and has children; column 29,

lines 34-50 and column 30, lines 29-32).

As to claims 86 and 95, Alexander and Maissel disclose wherein the heuristic

rules are not limited to applying values for specific demographic categories based on

programming viewed (wherein profile will also analyze Internet viewing and EPG

interaction; see Alexander at column 29, lines 34-43).

As to claim 87, Alexander discloses a method for generating a subscriber profile

from subscriber interaction, the method comprising:

processing subscriber interactions with a television in order to characterize

interaction traits associated with the subscriber (generating a list of user preferences for

particular channels, themes, etc...; column 29, lines 34-55), wherein the interaction

traits include at least viewing time (column 29, lines 50-55);

retrieving heuristic rules associated with at least some subset of the interaction

traits (an algorithm used by the Profile program to perform analysis; column 30, lines

17-37), wherein the heuristic rules predict demographic traits for a subscriber based on

interaction traits (column 30, lines 29-37); and wherein interaction trait to demographic

trait associations include at least program genre to family size (wherein user

interactions including program themes are analyzed to determine whether the

subscriber is married and has children; column 29, lines 34-50 and column 30, lines 29-

32); and

generating the subscriber profile (column 30, lines 17-37) by applying the

heuristic rules to the interaction traits (column 30, lines 17-37), wherein the subscriber

profile predicts demographic traits of the subscriber (column 30, lines 17-37).

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 53-56, 60-71, 73, 74, 77-79 and 88-90 are rejected under 35 U.S.C.

103(a) as being unpatentable over Alexander in view of Maissel et al. (Maissel) (WO

99/01984) (of record).

As to claim 53, while Alexander discloses a method for generating a subscriber

profile from subscriber interaction, the method comprising:

monitoring subscriber interactions with a multimedia interaction device

(monitoring user interactions with a TV and EPG; column 28, lines 30-52);

retrieving heuristic rules related to at least some subset of the filtered subscriber

interactions (an algorithm used by the Profile program to perform analysis; column 30,

lines 17-37), wherein the heuristic rules predict demographic traits for a subscriber

based on various subscriber interactions (column 30, lines 29-37); and

applying the heuristic rules to the filtered subscriber interactions (column 30,

lines 17-37) in order to generate a subscriber profile that predicts demographic traits of

the subscriber (column 30, lines 17-37), he fails to specifically disclose filtering out

irrelevant subscriber interactions.

In an analogous art, Maissel discloses a system for generating a profile based on

a television viewers interactions (Fig. 1; page 4, 7-12) which will filter out irrelevant

subscriber interactions (wherein the information is determined to indicate irrelevant

channel surfing information; page 26, lines 17-30) for the typical benefit of excluding

information for television viewing for a "short period of time" which may not be useful for

a user profile (page 26, lines 17-30).

It would have been obvious to one of ordinary skill in the art at the time of

invention by applicant to modify Alexander's system to include filtering out irrelevant

subscriber interactions, as taught by Maissel, for the typical benefit of excluding

information for television viewing for a "short period of time" which may not be useful for a user profile.

As to claims 77 and 88, while Alexander discloses monitoring subscriber interactions, he fails to specifically disclose filtering out irrelevant subscriber interactions.

In an analogous art, Maissel discloses a system for generating a profile based on a television viewers interactions (Fig. 1; page 4, 7-12) which will filter out irrelevant subscriber interactions (wherein the information is determined to indicate irrelevant channel surfing information; page 26, lines 17-30) for the typical benefit of excluding information for television viewing for a "short period of time" which may not be useful for a user profile (page 26, lines 17-30).

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander's system to include filtering out irrelevant subscriber interactions, as taught by Maissel, for the typical benefit of excluding information for television viewing for a "short period of time" which may not be useful for a user profile.

As to claim 54, Alexander and Maissel further disclose storing the subscriber profile (wherein the "Profile Program" will capture and store the user information and the analysis of that information; column 29, lines 22-30).

As to claim 55, Alexander and Maissel disclose wherein the heuristic rules are probabilistic in nature (wherein the rules are inherently probabilistic in that it is predicting demographic characteristics of the user; column 30, lines 17-37).

As to claim 56, Alexander and Maissel disclose wherein the subscriber profile is probabilistic in nature (wherein the profile is inherently probabilistic in that it is predicting demographic characteristics of the user; column 30, lines 17-37).

As to claim 60, Alexander and Maissel disclose wherein the heuristic rules associate subscriber interactions to demographic traits including at least some subset of program genre to age (wherein user interactions including program themes are analyzed to determine the subscriber age; see Alexander at column 29, lines 34-50 and column 30, lines 29-32) and program genre to family size (wherein user interactions including program themes are analyzed to determine whether the subscriber is married and has children; see Alexander at column 29, lines 34-50 and column 30, lines 29-32).

As to claim 61, Alexander and Maissel disclose wherein the heuristic rules are not limited to applying values for specific demographic categories based on programming viewed (wherein profile will also analyze Internet viewing and EPG interaction; see Alexander at column 29, lines 34-43).

As to claim 62, Alexander and Maissel disclose wherein the heuristic rules also predict product interest traits about the subscriber (see Alexander at column 30, lines 17-24).

As to claim 63, Alexander and Maissel disclose wherein the subscriber profile also predicts product interest traits about the subscriber (wherein the stored profile contains the analysis and user characteristics; see Alexander at column 29, lines 22-30 and column 30, lines 17-24).

As to claim 64, Alexander and Maissel disclose wherein said monitoring includes at least channel changes (see Alexander at column 28, lines 32-37) and associated time (see Alexander at column 28, lines 32-35).

As to claim 65, Alexander and Maissel disclose processing the filtered subscriber interactions to generate interaction characteristics for the subscriber (statistical analysis to determine the number of times a user performs any particular activity; see Alexander at column 29, lines 34-55).

As to claim 66, Alexander and Maissel disclose wherein said processing includes aggregating the subscriber interactions (accumulating the total number of times a user performed some activity; see Alexander at column 29, lines 36-55).

As to claim 67, Alexander and Maissel disclose wherein said processing includes processing the subscriber interactions for an interaction session (see Alexander at column 29, lines 34-43) to generate session interaction characteristics for the interactive session (to characterize user interactions in an EPG or the Internet for the session; see Alexander at column 29, lines 34-43).

As to claim 68, Alexander and Maissel disclose

said retrieving includes retrieving heuristic rules associated with the session viewing characteristics (an algorithm used by the Profile program to perform analysis; column 30, lines 17-37); and

said generating includes generating a session subscriber profile (profile using the session characteristics; column 30, lines 17-37 and column 29, lines 34-43) by applying the heuristic rules to the session characteristics (column 29, lines 34-43 and column 30, lines 17-37).

As to claim 69, while Alexander and Maissel disclose wherein said processing includes processing the subscriber interactions for multiple interaction sessions (wherein the profile is constantly updated with current session information; see Alexander at column 29, lines 36-43 and lines 23-27) to generate interaction characteristics for the multiple viewing sessions (to generate an updated profile containing all of the viewing session information; see Alexander at column 29, lines 22-30), they fail to specifically disclose generating average interaction characteristics.

The examiner takes Official Notice that it is notoriously well known in the art to use an average as representative of a large range of values for the typical benefit of finding a value with the best correlation and reducing the effects of extreme values on a system.

It would have been obvious to one of ordinary skill in the art at the time of invention by applicant to modify Alexander and Maissel's system to include generating average interaction characteristics for the typical benefit of finding a value with the best correlation and reducing the effects of extreme values on a system.

As to claim 70, Alexander and Maissel disclose wherein

said retrieving includes retrieving heuristic rules associated with the average interaction characteristics (an algorithm used by the Profile program to perform analysis; column 30, lines 17-37); and

said generating includes generating a session subscriber profile (profile using the session characteristics; column 30, lines 17-37 and column 29, lines 34-43) by applying the heuristic rules to the average interactionn characteristics (column 29, lines 34-43 and column 30, lines 17-37).

As to claim 71, Alexander and Maissel disclose wherein the interaction characteristics do not identify raw subscriber interaction data (wherein the raw collected data was processed to identify general habits of the user; column 29, lines 36-55).

As to claims 73, 78 and 89, Alexander and Maissel disclose wherein said filtering includes evaluating channel change commands (see Maissel at page 25, lines 4-8 and page 26, lines 17-21) and associated viewing times (user surfing through channels and only viewing a channel for a short period of time; see Maissel at page 26, lines 17-30).

As to claims 74, 79 and 90, Alexander and Maissel disclose wherein said filtering includes filtering out any channel change commands if associated viewing times are below a pre-determined threshold (ignoring all information concerning a program if it was viewer for less then a threshold time; see Maissel at page 26, lines 25-30).

5.   Claim 81 is rejected under 35 U.S.C. 103(a) as being unpatentable over Alexander as applied to claim 76 above, and further in view of Bedard (5,801,747).

As to claim 81, while Alexander discloses wherein the interaction characteristics include the number of times a viewer watched a channel and category and the duration of each viewing, he fails to specifically disclose including viewing time per channel, category and network.

In an analogous art, Bedard discloses a system for creating a viewing profile (column 2, lines 13-22) which will calculate and store a time duration for the time a user spent viewing a particular channel and network (ESPN; see Fig. 2; column 4, lines 49-54) and category (movies, news, etc...; see Fig. 2, column 4, lines 55-65) for the benefit of providing a means to determine a viewer's preferred channels and types of programming (column 3, lines 33-38).

It would have been obvious to one of ordinary skill in the art at the time of

invention by applicant to modify Alexander's system to include viewing time per

channel, category and network, as taught by Bedard, for the benefit of providing a

means to determine a viewer's preferred channels and types of programming based

upon the length of time the program was viewed.

6.   Claim 72 is rejected under 35 U.S.C. 103(a) as being unpatentable over

Alexander and Maissel as applied to claim 65 above, and further in view of Bedard.

As to claim 72, while Alexander and Maissel disclose wherein the interaction

characteristics include the number of times a viewer watched a channel and category

and the duration of each viewing, they fail to specifically disclose including viewing time

per channel, category and network.

In an analogous art, Bedard discloses a system for creating a viewing profile

(column 2, lines 13-22) which will calculate and store a time duration for the time a user

spent viewing a particular channel and network (ESPN; see Fig. 2; column 4, lines 49-

54) and category (movies, news, etc...; see Fig. 2, column 4, lines 55-65) for the benefit

of providing a means to determine a viewer's preferred channels and types of

programming (column 3, lines 33-38).

It would have been obvious to one of ordinary skill in the art at the time of

invention by applicant to modify Alexander and Maissel's system to include viewing time

per channel, category and network, as taught by Bedard, for the benefit of providing a

means to determine a viewer's preferred channels and types of programming based

upon the length of time the program was viewed.

7.   Claims 75, 80 and 91 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Alexander and Maissel as applied to claims 65, 77 and 88 above, and further in

view of Lawler (5,758,259) (of record).

As to claims 75, 80 and 91, while Alexander and Maissel disclose wherein said

evaluating comprises evaluating viewing times and filtering out any viewing periods that

are less then a certain threshold (see Maissel at page 26, lines 23-30), they fail to

disclose filtering out any interaction periods having no subscriber interactions within a

pre-determined time period.

In an analogous art, Lawler discloses an EPG which builds a viewer preference

table based upon user viewing activities (column 2, lines 20-37) which will stop keeping

track of viewed programming if a user entry is not received in a certain time frame

(column 10, lines 11-19) for the typical benefit improving the accuracy of the stored

viewing history (column 10, lines 11-14).

It would have been obvious to one of ordinary skill in the art at the time of

invention by applicant to modify Alexander and Maissel's system to include filtering out

any interaction periods having no subscriber interactions within a pre-determined time

period, as taught by Lawler, for the benefit of ensuring that a stored viewing history of a

cable television viewer is as accurate as possible.

8.   Claims 82-84 and 92-94 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Alexander as applied to claims 76 and 87 above, and further in view

of Knee et al. (Knee) (US2002/0095676) (of record).

As to claims 82 and 92, while Alexander discloses heuristic rules to predict

demographic characteristics based on the first representation, he fails to specifically

disclose assigning probabilities of the subscriber falling within different categories for

various demographics.

In an analogous art, Knee discloses an EPG (paragraph 17) which will construct

a demographic profile for a user (Fig. 2) which will assign probabilities of the subscriber

falling within different categories for various demographic characteristicss (Fig. 2;

paragraph 29) based on the subscriber interactions (paragraph 36 and Fig. 4) for the

typical benefit of creating a profile which can accurately associate a viewer with various

categories (paragraphs 29-30).

It would have been obvious to one of ordinary skill in the art at the time of

invention by applicant to modify Alexander's system to include assigning probabilities of

the subscriber falling within different categories for various demographics, as taught by

Knee, for the benefit of creating a more robust subscriber profile which can associate a

viewer with various defined categories.

As to claims 83 and 93, Alexander and Knee disclose wherein the demographic

characteristics include at least some subset of age (see Knee at Fig. 2 and paragraph

29) and income (see Knee at Fig. 2 and paragraph 29).

As to claims 84 and 94, Alexander and Knee disclose wherein the categories

include at least ranges for income (see Knee at Fig. 2, categories 6-8).

9.   Claims 57-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Alexander and Maissel as applied to claim 53 above, and further in view of Knee.

As to claim 57, while Alexander and Maissel disclose heuristic rules to predict

demographic characteristics based on the subscriber interactions, they fail to

specifically disclose assigning probabilities of the subscriber falling within different

categories for various demographics.

In an analogous art, Knee discloses an EPG (paragraph 17) which will construct

a demographic profile for a user (Fig. 2) which will assign probabilities of the subscriber

falling within different categories for various demographic characteristicss (Fig. 2;

paragraph 29) based on the subscriber interactions (paragraph 36 and Fig. 4) for the

typical benefit of creating a profile which can accurately associate a viewer with various

categories (paragraphs 29-30).

It would have been obvious to one of ordinary skill in the art at the time of

invention by applicant to modify Alexander and Maissel's system to include assigning

probabilities of the subscriber falling within different categories for various

demographics, as taught by Knee, for the benefit of creating a more robust subscriber

profile which can associate a viewer with various defined categories.

As to claim 58, Alexander, Maissel and Knee disclose wherein the demographic

characteristics include at least some subset of age (see Knee at Fig. 2 and paragraph

29) and income (see Knee at Fig. 2 and paragraph 29).

As to claim 59, Alexander, Maissel and Knee disclose wherein the categories

include at least ranges for income (see Knee at Fig. 2, categories 6-8).

Response to Arguments

10.   Applicant's arguments have been considered but are moot in view of the new

ground(s) of rejection.

Conclusion

11.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

12.   The following are suggested formats for either a Certificate of Mailing or
Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with
all correspondence concerning this application or proceeding to establish a date of
mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in
such communication being considered as timely if the established date is within the
required period for reply. The Certificate should be signed by the individual actually
depositing or transmitting the correspondence or by an individual who, upon information
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of business by another no later than the date indicated.

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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

13.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Sheleheda whose telephone number is (703) 305-8722. The examiner can normally be reached on 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Miller can be reached on (703) 305-4795. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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